

IN THE CLAIMS

Please cancel Claims 1-18 without prejudice and add new Claims 19-38.

1-18 (Cancelled)

19. (New) A side-emitting illumination device for uniformly distributing light comprising:

a light source,

a light-transmitting rod which permits substantially total internal reflection, and

outcoupling material affixed to an outer surface of the rod, wherein the angular width of the outcoupling material affixed to an outer surface of the rod controls the angular distribution of light leaving the side of the rod.

20. (New) The side-emitting illumination device of claim 19, wherein the light source further comprises a plurality of LEDs.

21. (New) The side-emitting illumination device of claim 20, wherein the plurality of LEDs includes at least a red, a green, and a blue LED which, when mixed, generate white light.

22. (New) The side-emitting illumination device of claim 21, wherein the array of red, green, and blue LEDs can be mixed to generate white light chromaticity.

23. (New) The side-emitting illumination device of claim 21, wherein the array of red, green, and blue LEDs can be mixed to generate dynamic color effects.

24. (New) The side-emitting illumination device of claim 19, wherein the rod is a flexible rod.

25. (New) The side-emitting illumination device of claim 19, wherein the rod is a rigid rod.

26. (New) The side-emitting illumination device of claim 19, wherein the outcoupling material is paint.

27. (New) The side-emitting illumination device of claim 26, wherein the paint is white paint.

28. (New) The side-emitting illumination device of claim 27, wherein the white paint is distributed in such a way as to control the angular distribution of light leaving the rod.

29. (New) The side-emitting illumination device of claim 27, wherein the white paint is distributed in such a way as to ensure uniform light distribution along the length of the rod.

30. (New) The side-emitting illumination device of claim 19, wherein the rod is an elliptical rod in cross-section.

31. (New) The side-emitting illumination device of claim 19, wherein the rod is a square rod in cross-section.

32. (New) The side-emitting illumination device of claim 19, wherein the rod is a combination of straight and curved edges in cross-section.

33. (New) The side-emitting illumination device of claim 32, wherein the combination of straight and curved edges vary in configuration along the length of the rod.

34. (New) The side-emitting illumination device of claim 19, wherein the outcoupling material comprises a combination of white paint and fine dots with varying packing density.

35. (New) The side-emitting illumination device of claim 19, wherein the device further comprises a mirror at an end of the rod away from the light source.

36. (New) The side-emitting illumination device of claim 35, wherein the mirror reflects light that travels the entire length of the rod.

37. (New) A method of controlling the angular distribution of light leaving the side of a side-emitting illumination device for uniformly distributing light comprising:

providing a light-transmitting rod which permits substantially total internal reflection with an outcoupling material along its side;

controlling the width of the outcoupling material to achieve a desired angular distribution of light leaving the side of the rod; and

illuminating the light-transmitting rod with a light source.

38. (New) A side-emitting illumination device for distributing light comprising:

a light source,

a light-transmitting rod which permits substantially total internal reflection, and

outcoupling material affixed to an outer surface of the rod, wherein the outcoupling material exclusively controls the angular distribution of light leaving the side of the rod.